## IN THE WRITTEN DESCRIPTION

Please replace the paragraph beginning on page 14, line 45, and ending on page 15, line 34, with the following paragraph:

Yet another important feature of the inventive polymerization is the control of the total molecular weight and of the global composition of the polymer. In true living polymerization processes it is possible to estimate the number average molecular weight of a given reaction by dividing the mass of the monomer by the number of moles of the effective primary radicals generated by the initiator. The moles of effective primary radicals of initiator can be estimated as the number of free radicals generated by the initiator decomposition multiplied by the initiator efficiency. Since every effective primary radical generates a polymeric chain that grows throughout the polymerization, the number of polymer moles equals the number of moles of effective primary radicals. Although the process disclosed herein is not a completely living process, the aforementioned calculation gives an approximate estimation of the number average molecular weight of the polymer formed, so polymers of a given molecular weight can be designed in approximate fashion. A more precise estimation of the molar concentration of initiator needed for a specific number average molecular weight, obtained by linear regression of many experimental data generated during the investigation leading to this invention, is given by about

0.00775 - 5x10-8 Mn, if the desired molecular weight is larger than about 61500, and

0.02519 - 3.33x10-7 Mn if the desired molecular weight is smaller than about 61500

in which Mn is the target number average molecular weight, which is determined by gel permeation chromatography relative to polystyrene standards according to ASTM # D3536. Among the reasons for having two straight lines instead of one that would correspond to an ideal living process with instantaneous initiation, are that the process is not completely living and the presence of thermal autoinitiation of styrene, which is more pronounced in the range of large molecular weights (small initiator concentrations). On the other hand, the previous correlations give the best average value for the experimental data used, but the actual data show some dispersion due to the fact that the data include sets of experiments run in a variety of conditions with ample intervals of stable free radical to initiator ratio and different concentrations of maleic anhydride. The actual data fall in a band rather than on a line. The band is better represented by the following correlations:

A - 5x10-8 Mn, if the desired molecular weight is larger than about 61500, and

B - 3.33x10-7 Mn, if the desired molecular weight is smaller than about 61500,

in which Mn is the target number average molecular weight; A is between about 0.005 and about 0.01, and B is between about 0.016 and about 0.042.

## REMARKS

The application has been amended to expressly cite the ASTM procedure for determining molecular weight.

Respectfully submitted,

Date: July 18, 2003

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Registry No. 41,075

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## MARKED UP VERSION SHOWING CHANGES

Yet another important feature of the inventive polymerization is the control of the total molecular weight and of the global composition of the polymer. In true living polymerization processes it is possible to estimate the number average molecular weight of a given reaction by dividing the mass of the monomer by the number of moles of the effective primary radicals generated by the initiator. The moles of effective primary radicals of initiator can be estimated as the number of free radicals generated by the initiator decomposition multiplied by the initiator efficiency. Since every effective primary radical generates a polymeric chain that grows throughout the polymerization, the number of polymer moles equals the number of moles of effective primary radicals. Although the process disclosed herein is not a completely living process, the aforementioned calculation gives an approximate estimation of the number average molecular weight of the polymer formed, so polymers of a given molecular weight can be designed in approximate fashion. A more precise estimation of the molar concentration of initiator needed for a specific number average molecular weight, obtained by linear regression of many experimental data generated during the investigation leading to this invention, is given by about

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